DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 70.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-004737
Date Inspected: 21-Nov-2008

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Japan Steel Works

OSM Arrival Time: 830
OSM Departure Time: 1700
Location: Muroran, Japan

CWI Name: Chung-Fu Kuan

Inspected CWI report:	☑ Yes	☐ No	☐ N/A	**CWI Present:**	☑ Yes ☐ No
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes ☐ No ☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes ☐ No ☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes ☐ No ☐ N/A
				Approved WPS:	☑ Yes ☐ No ☐ N/A
				Delayed / Cancelled:	☐ Yes ☑ No ☐ N/A

Bridge No: 34-0006
Component: Tower, Jacking and Deviation Saddles

Summary of Items Observed:

The following report is based on METS observations at Japan Steel Works (JSW) in Muroran Japan. Current work: Casting, machining and nondestructive testing of Saddles.

Fabrication Shop 4

T1-1 Base
No work performed on this date.

T1-1 Casting
No work performed on this date.

T1-2 Base
The QA inspector observed the in process welding of the structural steel plates for the Tower Saddle Base T1-2. The JSW welding personnel Satoru Watanabe, ID 08-5159 continued the fill welding of joint 8Y-5V (2-3) in the flat position. Takatoshi Inoue, ID 08-5163 continued the fill welding of joint 8Y-12V (2-2) in the flat position. The welding was performed utilizing the gas shielded flux cored arc welding process per the welding procedure specification (WPS) SJ-3012-3. Intertek Testing Services Quality Control (QC) inspector Mr. Chung-Fu Kuan monitored the welding parameters and heat control at periodic intervals. The minimum preheat temperature of 110°Celsius and maximum interpass temperature of 260° Celsius were verified to meet the WPS requirements by Mr. Kuan and the QA inspector utilizing Tempilstik temperature indicators. This data was entered into the QC inspector's daily log, identifying the location on a weld map. The work was not completed on this date and

appears to meet the minimum requirements of the welding procedure specification and contract documents.

T1-3 Base

The QA inspector observed the in process assembly layout and fit-up operation of the structural steel plates for the Tower Saddle Base T1-3. The center rib plates were were aligned on the base plate and to the stem plate. The JSW fitter personnel Kiyotaka Koanagi performed the layout in accordance with approved drawings. The JSW welding personnel Yoshihiro Ohta, ID 08-2017 performed the in process tack welding of joint 9Y-6V (3-2) in the vertical position. The welding was performed utilizing the Shielded Metal Arc Welding (SMAW) process per the welding procedure specification (WPS) SJ-3012-2. The welding parameters and heat control were monitored by Intertek Testing Services Quality Control (QC) inspector Mr. Chung-Fu Kuan at periodic intervals. The minimum preheat temperature of 110°Celsius was verified to meet the WPS requirements by Mr. Kuan and the QA inspector utilizing Tempilstik temperature indicators. This data was entered into the QC inspector's daily log, identifying the location on a weld map. The work was not completed on this date and appears to meet the minimum requirements of the welding procedure specification and contract documents.

W2-E2 Base

No work performed on this date.

W2-W1 Casting

No work performed on this date.

Foundry

W2-W3 Casting

Two JSW employees were observed grinding areas where excess material has been removed from the exterior surface of the casting W2-W3. The grinding was performed to smooth the surface of the casting where the Air-Carbon Arc method was utilized. Work was not completed on this date and appears to meet the minimum requirements of the contract documents.

T1-2 Casting

No work performed on this date.

T1-3 Casting

Two JSW employees were observed removing excess riser material from the exterior surface of the casting T1-3. The material was removed utilizing the Air-Carbon Arc method. Work was not completed on this date and appears to meet the minimum requirements of the contract documents.

East Saddle Casting

The East Saddle casting was removed from the mold and was placed in the foundry to cool.

The following digital photographs illustrate observations of the activities being performed.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Summary of Conversations:

There were general conversations with Intertek Testing Services Certified Welding Inspector Mr. Chung-Fu Kuan relative to the location of the welding and inspection personnel in the fabrication shop number 4.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Venkatesh Iyer, (858) 967-6363, who represents the Office of Structural Materials for your project.

Inspected By:	Lanz,Joe	Quality Assurance Inspector
Reviewed By:	Brasel,Ron	QA Reviewer